

Application Serial No. 09/662,679
Attorney's Docket No.: 10559-195001

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Cancelled)

3. (Currently amended) The method of claim 2 30, wherein determining the probability that the video clip contains each of the predefined gestures includes evaluations of Hidden Markov Models.

4-6. (Canceled)

7. (Currently amended) The method of claim ~~4~~ 30, further comprising displaying a target gesture to be performed by the subject of the video data and wherein said target gesture represents said desired gesture.

8. (Cancelled)

9. (Cancelled)

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10. (Original) The method of claim 9 30, further comprising generating a feature vector for each video frame of the video clip.

11. (Currently amended) The method of claim ~~1~~ 30, further comprising generating a score based on whether the video clip contains a target gesture.

12. (Original) The method of claim 11, further comprising displaying the score.

13. (Cancelled)

14. (Cancelled)

15. (Currently amended) The system of claim ~~14~~ 32, wherein the recognition engine includes a plurality of Hidden Markov Models.

16. (Currently amended) The system of claim ~~14~~ 32, further comprising:

a video source, in communication with the temporal segmentor, to provide the video data to the temporal segmentor.

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17. (Currently amended) The system of claim 14 32, further comprising a move subsystem, in communication with the timing data source, to provide a said target gesture to be performed by the subject of the video data.

18. (Original) The system of claim 17, wherein the target gesture is a dance move that is to be performed by the subject of the video data.

19. (Currently amended) The system of claim 17, further comprising a scoring subsystem, in communication with the recognition engine and the move subsystem, to ~~determine if a~~ score based on whether the video clip contains the target gesture.

20. (Original) The system of claim 19, further comprising a display subsystem, in communication with the scoring subsystem, to display a score that is a function of whether the video clip contains the target gesture.

21. (Original) The system of claim 20, wherein the display subsystem is in communication with the move subsystem and is

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configured to display a gesture request based on the target
gesture.

22. (Cancelled)

23-25. (Canceled)

26. (Cancelled)

27. (Canceled)

28-30. (Cancelled)

31. (New) A method comprising:

receiving audio data which represents music that has a beat
formed of an audibly perceptible periodic pulse contained within
the audio data;

obtaining beat data indicative of said beat data for said
audio data;

playing said audio data, and using said beat to determine a
gesture window associated with said audio data;

obtaining video data during the time of said gesture
window;

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segmenting said video data to form individual frames of video data and investigating said frames to determine gesture probabilities for target gestures contained in said frames; and determining if a gesture probability associated with said different gestures represents a target gesture to be determined during said frames.

32. (New) A system comprising:

an audio receiving part that receives audio data representing music that has a beat formed of an audibly perceptible periodic pulse contained within the audio data;

a processor, operative to determine said beat data indicative of said beat, and to define a gesture window of time based on said beat, during which gesture window, a specified gesture should occur;

a video device, receiving video, and segmenting said video into a plurality of different frames; and

wherein said processor is also operative to recognize gestures within said frames and determine probabilities of which gestures are represented within the frames and whether the gestures represent a target gesture associated with a specified beat data.

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33. (New) A computer program product, tangibly stored on a computer readable medium, for recognizing gestures in video data at times associated with music, comprising instructions operable to cause a programmable processor to:

receive audio data which represents music that has eight beat formed of an audibly perceptible periodic pulse contained within the audio data;

obtaining beat data indicative of said beat associated with said audio data;

play said audio data, and using said beat data to determine a gesture window associated with the audio data;

obtain video data during a time defined by said gesture window;

segment said video data to form individual frames of video data and investigate said individual frames to determine gesture probabilities indicative of whether target gestures are contained in said frames; and

determine if a gesture probability represents that a target gesture has been determined during said frame.

34. (New) A method as in claim 33, wherein said obtaining beat data comprises extracting beat data automatically from the audio data.

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35. (New) A method as in claim 34, wherein said extracting comprises analyzing a MIDI sequence representing said audio signal, and extracting beat data from a specified channel of the meeting data that represents a drumbeat.

36. (New) A system as in claim 32, wherein said processor is also operative to analyze said audio data to automatically determine beat data associated with the audio data.

37. (New) A system as in claim 36, wherein said audio data includes MIDI data and said processor analyzes the MIDI data to automatically determine the data from a specified channel of the MIDI data.

38. (New) A computer program as in claim 33, further comprising instructions to automatically analyze said audio data to automatically determine beat data associated with the audio data.

39. (New) A computer program as in claim 38, wherein said audio data includes MIDI data, and said instructions analyze a specified channel of the MIDI data to determine the data from said specified channel.